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See application file for complete search history.

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(57) **ABSTRACT**

A linear ball bearing guideway is provided with six rows of balls disposed between the slider and the rail, so as to improve the overall load capacity. The six rows of balls are symmetrically disposed at two sides of the head portion of the rail, and the three of the six rows of balls at each side are located at different heights. The neck-portion width of the head portion is smaller than a distance between the two rows of balls disposed at the lowest rail rolling grooves, but larger than the value of a distance between the two rows of balls in the highest rail rolling grooves minus a diameter of the balls, which ensures that the neck-portion width is overly small and affect the stiffness of the rail.

8 Claims, 9 Drawing Sheets

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CPC *F16C 29/0638* (2013.01); *F16C 29/005*
(2013.01); *F16C 29/04* (2013.01)

(58) **Field of Classification Search**

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F16C 29/0633; F16C 29/0635; F16C 29/0638;

